CLAIMS

1. A coating which has been applied to a substrate, comprising at least a first film and a second film which have been applied on top of each other and each comprise a transparent conducting oxide and an electron donor, wherein the second film comprises relatively at least 10 percent less electron donor than the first film.

2. A coating according to claim 1, wherein the first film has been applied to the substrate.

3. A coating according to claim 1 or 2, wherein the second film comprises relatively at least 25 percent less electron donor than the first film.

4. A coating according to claim 3, wherein the second film comprises relatively at least 50 percent less electron donor than the first film.

5. A coating according to any one of claims 1-4, wherein the electron donor is formed by oxygen deficiencies and/or is chosen from the dopants fluorine, antimony, chlorine, gallium, tin, zinc, boron, niobium and/or aluminum.

6. A coating according to claim 5, wherein the dopant is chosen from the group of fluorine, chlorine, antimony and/or niobium.

7. A coating according to claim 6, wherein the dopant comprises fluorine.

8. A coating according to any one of claims 1-7, wherein the electron donor is present in the second film in an amount of at most 13 atomic percent.

9. A coating according to any one of claims 1-8, wherein the electron donor is present in the first film in an amount of at most 15 atomic percent.

10. A coating according to any one of claims 1-9, wherein the transparent conducting oxide is chosen from the group of tin oxide, zinc oxide and/or indium tin oxide.

11. A coating according to claim 10, wherein the first film and second film comprise tin oxide.

12. A coating according to any one of claims 1-11, wherein, in the second film, the average particle size of the crystals of the transparent conducting oxide is 50-500 nm.

13. A coating according to any one of claims 1-12, wherein the second film has a total thickness of 300-900 nm.

14. A coating according to any one of claims 1-13, wherein the first film has a total thickness of 50-500 nm.

15. A coating which has been applied to a substrate, comprising a film which comprises a transparent conducting oxide and an electron donor, wherein the film comprises tin oxide of which the two dominant crystalline orientations are the (211) and (110) orientations.

16. A coating according to claim 15, wherein the average particle size of the crystals of the transparent conducting oxide is 50-500 nm.

17. A coating according to claim 15 or 16, comprising at least a first film and a second film which each comprise a transparent conducting oxide and an electron donor, wherein the second film comprises tin oxide of which the two dominant crystalline orientations are the (211) and (110) orientations.

18. A coating according to claim 17, wherein the first film has been applied to the substrate.

19. A coating according to claim 17 or 18, wherein the first and second films both comprise tin oxide.

20. A coating according to any one of claims 1-19, wherein the coating has a total thickness of 300-1000 nm.

21. A coating according to any one of claims 1-20, wherein the substrate is made of metal, ceramic or glass or of a material which comprises one or more polymers.

22. A solar cell comprising a coating according to any one of claims 1-21.

23. A method for applying the coating according to any one of claims 1-14 and 17-22 to a substrate, wherein at least a first and a second mixture which each comprise one or more precursors for a transparent conducting oxide and an electron donor are applied to the substrate, wherein the second mixture is composed such that relatively at least 10 percent less electron donor is incorporated in the second film.

24. A method according to claim 23, wherein the first mixture is applied to the substrate and the first film is formed, after which the second mixture is applied to the top side of the first film and the second film is formed.